



**ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS**

**DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY**

<http://www.dmst.aueb.gr>

**COURSE GUIDE**

**2013-2014**

# **ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS**

---

**Year 93nd**

## **RECTOR**

**Professor Konstantine Gatsios**

## **VICE-RECTOR OF ACADEMIC AFFAIRS**

**Professor Emmanouil Giakoumakis**

## **VICE-RECTOR OF ECONOMIC AFFAIRS:**

**Professor George Giaglis**

---

## **DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY**

### **HEAD**

**Professor Christos Tarantilis**

### **DEPUTY HEAD**

**Associate Professor Athanassia Pouloudi**

### **ADMINISTRATOR**

**Ms Chryssoula Sakellariou**

## CONTENTS

1. THE DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY.....	4
1.1 MISSION AND OBJECTIVES.....	4
1.2 UNDEGRADUATE CURRICULUM .....	6
1.3. COURSE STRUCTURE AND STREAMS .....	9
1.4. ELECTIVE COURSES, TEACHING, EXAMS AND GRADUATION.....	9
1.4.1 Elective courses information.....	9
1.4.2 Teaching, registering for courses and re-assessment .....	10
1.4.3 Exams, Grades and Graduation .....	11
1.5 STREAMS, INTERNSHIP PROJECT, CAREER PROSPECTS AND ALUMNI .....	12
1.5.1 Streams.....	12
1.5.2 Internship Project.....	15
1.5.3 Career Prospects .....	17
1.5.4 Alumni .....	18
1.6. DEPARTMENTAL STAFF .....	19
1.6.1 Faculty.....	19
1.6.2 Special Technical Laboratorial Staff .....	23
1.6.3 Administrative Staff.....	23
1.7 EVALUATION PROCEDURES .....	25
2. DESCRIPTION OF COURSES.....	26
2.1 FIRST SEMESTER .....	26
2.2 SECOND SEMESTER.....	27
2.3 THIRD SEMESTER .....	28
2.4 FOURTH SEMESTER.....	30
2.5 FIFTH SEMESTER .....	32
2.6 SIXTH SEMESTER.....	33
2.7 SEVENTH SEMESTER .....	39
2.8 EIGHTH SEMESTER .....	44
3. BENEFITS AND OPPORTUNITIES FOR STUDENTS.....	45
3.1 EDUCATIONAL INFORMATION SYSTEM - EDUPORTAL .....	45
3.2. LIFELONG-LEARNING STUDENT EXCHANGE – ERASMUS .....	46

# 1. THE DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY

## 1.1 MISSION AND OBJECTIVES

Changes in the structure and the core character of business processes have rendered technology an important factor influencing the transformation of enterprises and organizations. Typically, the development, utilization and management of new technologies remain intrinsically connected with management science. Moreover, there appears an increasing interconnection among the activities and operations performed within a modern organization. In addition, competition urges organizations to devise strategic and tactical plans entailing substantial technological investments, i.e., highly innovative ventures entailing considerable risk. All the above require specialized personnel to be dealt with effectively. Beyond that, the Greek economy seeks the organizational and administrative modernization of its businesses and organizations, with the aim of boosting its competitiveness against the backdrop of a globalized economy.

A fundamental condition towards achieving this goal is the preparation of trained executives and consultants, who will be able to make effective decisions benefitting both businesses and the economy alike, using contemporary methods of decision making, technological means and best practices. These professionals should also be able to operate in the internet-based era of e-business.

Hence the curriculum offered by this Department has been designed to prepare high-level professionals for enterprises and organizations, able to cope effectively with the complexity of current and future technological, economic and social challenges. In that direction, the emphasis of the undergraduate degree lies in the interdisciplinary integration of the scientific fields related to Management Science and Technology. More specifically, the purpose of the program is to provide prospective managers with knowledge of key concepts of management science, combined with technological skills, along with the necessary organizational and leadership competences. This combination of knowledge and skills will help them make and effectively implement strategic and operational decisions, which by nature require a multidisciplinary approach.

Therefore, the differentiation and the originality of the curriculum and the undergraduate program of studies lies in the consolidation of a modern, quantitative and technological, background, which provides students with advanced administrative and organizational knowledge and skills. This will allow department graduates to be highly competitive in the job market, since they will be able to effectively deal with multifaceted management and business challenges in a rapidly changing, highly competitive and technologically advanced environment.

The Department, as far as the (Pan-Hellenic) entrance exams are concerned, is assigned to both the 4<sup>th</sup> (Technological Sciences ) and 5<sup>th</sup> ( Economic and Management Sciences) field, thus seeking to attract two classes of candidates:

- Those who wish to study management science with a strong emphasis on operations research and decision making, operations management, logistics and supply chain management, entrepreneurship, innovation, and organization analysis.

- Those who wish to combine information systems and technologies with an in-depth appreciation of their management challenges and organizational implications

## **Overview of the Department**

- It is unique in its specialization in Greece, combining modern management science with computer and communication technologies and organizational studies.
- 170 new students are enrolled each year, all highly ranked at the entrance exams
- It has 22 faculty members, of which 40% hold a Ph.D. from the top 20 universities in the world. The scientific staff has a strong presence in academia worldwide, having achieved international recognition, and having taught at leading universities such as Wharton, LSE, LBS, etc.
- The curriculum is based on a well-organized, technocratic approach. It is internationally oriented (various visiting professors coming to teach every year, collaborations with leading universities are active within its undergraduate, postgraduate and research program).
- It focuses on research and development, with more than 25 international research collaboration projects with leading universities and research centers around the world and over 70 doctoral students.
- It boasts 6 excellently equipped research laboratories where 60 researchers are currently employed. It also operates 4 laboratories.
- It runs, independently and in collaboration with other Departments, five high-level graduate programs with 250 students annually enrolled. Two of them are full-time and three part-time, i.e., executive programs for working professionals.
- Both the ease with which its alumni pursue postgraduate studies at top-notch universities around the world and the number of papers published by its researchers in peer-reviewed journals attest to the advanced level of studies offered; several Ph.D. holders of this Department already teach at universities in Greece and abroad.

	<b>1999-2001</b>	<b>2001-2003</b>	<b>2003-2005</b>	<b>2005-2006</b>	<b>2006-2008</b>	<b>2008-2010</b>	<b>2010-2012</b>
<b>Head</b>	P. Miliotis	G. Doukidis	G. Doukidis	S. Lioukas	K. Zografos	K. Zografos	G. Ioannou
<b>Deputy Head</b>	G. Doukidis	A. Refenes	D. Bourantas	G. Doukidis	G. Doukidis	D. Spinellis	D. Bourantas

## **1.2 UNDERGRADUATE CURRICULUM**

The Department of Management Science and Technology offers a 4-year undergraduate degree that provides its graduates with the scientific knowledge and business-oriented practice required by contemporary job markets. Obtaining this degree requires the successful completion of thirty-seven (37) academic courses plus a compulsory 3-month internship at designated organizations.

The Department's undergraduate degree includes twenty-seven (27) compulsory courses, which introduce students to the key concepts and fundamentals of Management Science and Information Technology. Hence the first five (5) semesters comprise solely of compulsory courses (25 in total), with an additional two (2) compulsory courses appearing during the sixth (6<sup>th</sup>) and the seventh (7<sup>th</sup>) semester, respectively.

Elective courses define the degree's main structure from the 6th semester onwards; at the beginning of that semester, students select the stream(s) in which they specialize and thus obtain in-depth knowledge and experience. Currently, the Department offers the streams of "Operations Research and Management Science", "Operations and Supply Chain Management", "Information Systems and Technologies", "E-business, Innovation and Entrepreneurship", "Strategy and Human Resources"; each stream comprises five (5) elective courses.

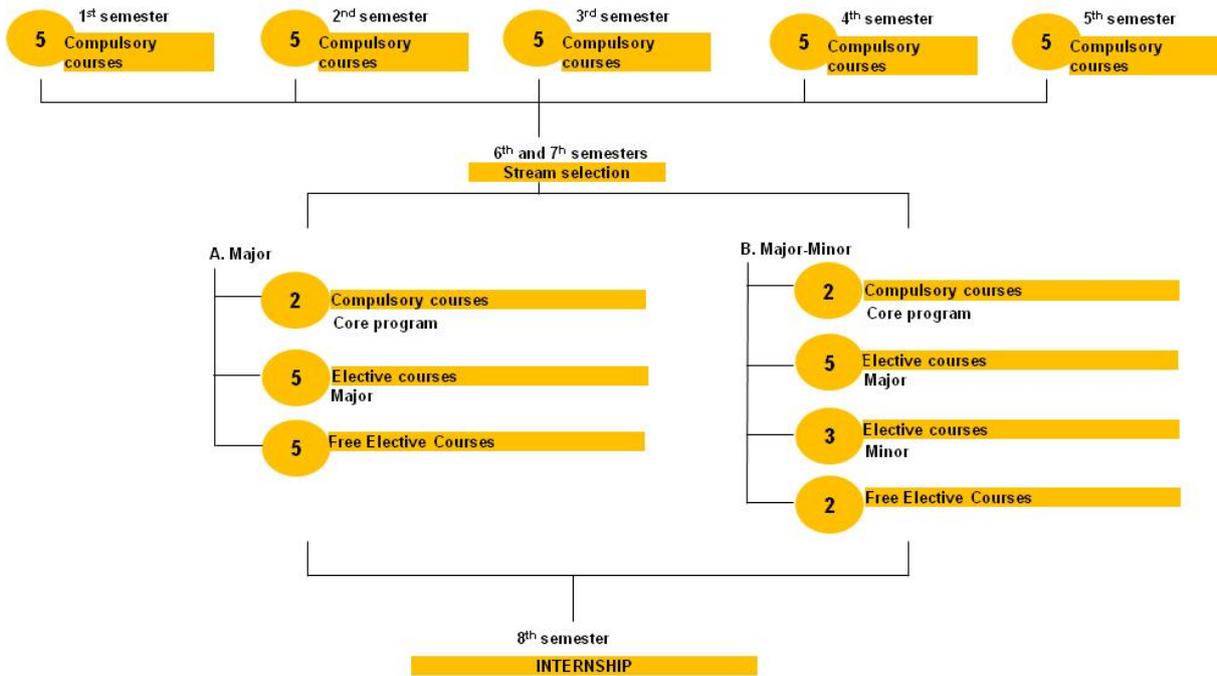
Each student has to enroll in a total of ten (10) elective courses, based upon the selection of either (a) a single stream (major), or (b) two streams, namely a primary (major) and a secondary (minor) one. Under the first setting, students enroll in all five courses of their major stream plus five additional courses from the Department's course list. Under the second setting, students enroll in all five courses of their major stream plus any three courses of their minor stream plus two courses from the Department's course list.

Under this framework, and based on the guidance of their supervisors, students select the courses that match their academic and professional interests. The specialized knowledge of the 6th and the 7th semester builds on the solid academic background formed during the first five semesters and is actively combined with a pertinent working experience during the 3-month internship of the 8th semester.

<b>1st Semester (Total: 30 ECTS)</b>	
8101 Mathematics I	6 ECTS
8103 Introduction to Management	6 ECTS
8105 Introduction to Computer Science	6 ECTS
8107 Introduction to Marketing	6 ECTS
8109 Microeconomic Analysis	6 ECTS
<b>2nd Semester (Total: 30 ECTS)</b>	
8102 Mathematics II	6 ECTS
8160 Quantitative Methods in Economics & Business I	6 ECTS
8106 Programming I	6 ECTS
8108 Accounting	6 ECTS
8110 Macroeconomic Analysis	6 ECTS
Optional course, exclusively for the 1 <sup>st</sup> year students	
8112 Contemporary issues & trends on Management & Technology	6 ECTS
<b>3rd Semester (Total: 30 ECTS)</b>	
8111 Decision Making	6 ECTS
8165 Quantitative Methods in Economics & Business II	6 ECTS
8115 Organizational Behavior and Leadership	6 ECTS
8117 Database Management Systems	6 ECTS
8119 Programming II	6 ECTS
<b>4th Semester (Total: 30 ECTS)</b>	
8114 Human Resource Management	6 ECTS
8116 Mathematical Programming	6 ECTS
8118 Financial Management	6 ECTS
8120 Analysis & Design of Information Systems	6 ECTS
8162 Networks, Algorithms and Data Structures	6 ECTS
<b>5th Semester (Total: 30 ECTS)</b>	
8121 Project Management	6 ECTS
8123 Optimization Methods in Management Science	6 ECTS
8125 Management and Information Technology	6 ECTS
8127 Work & Organizational Psychology	6 ECTS
8129 Information Systems Implementation and Architecture	6 ECTS
<b>6th Semester (Total: 36 ECTS)</b>	
8142 Business Strategy (compulsory)	6 ECTS
<b>Stream I: Operations Research &amp; Management Science</b>	
8144 Topics in Operations Research and Decision Systems	6 ECTS
8134 Production & Operations Management	6 ECTS
<b>Stream II: Information Systems &amp; Technologies</b>	
8152 Digital Content Management & Human-Computer Interaction	6 ECTS
8126 Analysis & Modeling of Business Processes and Systems	6 ECTS
8138 Advanced Topics in Software Engineering	6 ECTS
<b>Stream III: Strategy &amp; Human Resource Management</b>	
8130 Quality Management	6 ECTS
8136 Advanced topics in Organizational Behavior & Human Resource Management	6 ECTS

<b>Stream IV: Operations &amp; Supply Chain Management</b>	
8132 Supply Chain Management	6 ECTS
8134 Production & Operations Management	6 ECTS
8144 Topics in Operations Research and Decision Systems	6 ECTS
<b>Stream V: Electronic Business, Innovation &amp; Entrepreneurship</b>	
8146 Electronic Commerce and Internet Applications	6 ECTS
8150 Digital Marketing	6 ECTS
<b>Free electives</b>	
Core courses from any other stream	6 ECTS
8140 Final Year Project (spring semester)	6 ECTS
<b>7th Semester (Total: 30 ECTS)</b>	
8154 Entrepreneurship (compulsory)	6 ECTS
<b>Stream I: Operations Research &amp; Management Science</b>	
8167 Stochastic Modeling & Simulation	6 ECTS
8143 Combinatorial Optimization	6 ECTS
8163 Financial Engineering	6 ECTS
<b>Stream II: Information Systems &amp; Technologies</b>	
8139 Information Resource Management	6 ECTS
8137 Business Intelligence and Big Data Analytics	6 ECTS
<b>Stream III: Strategy &amp; Human Resource Management</b>	
8135 Personal Skills Development	6 ECTS
8151 E-learning and Knowledge Management	6 ECTS
8169 Advanced Topics in Strategy and Innovation	6 ECTS
<b>Stream IV: Operations &amp; Supply Chain Management</b>	
8159 Enterprise Resource Planning Systems	6 ECTS
8133 Analysis and Planning of Distribution and Transportation Systems	6 ECTS
<b>Stream V: Electronic Business, Innovation &amp; Entrepreneurship</b>	
7135 Portfolio Analysis & Management	6 ECTS
8169 Advanced Topics in Strategy and Innovation	6 ECTS
<b>Free electives</b>	
Core courses from any other stream	6 ECTS
8171 Strategies for Decision Making and Problem Solving	6 ECTS
8149 Final Year Project (fall semester)	6 ECTS
<b>8th Semester (Total: 24 ECTS)</b>	
8164 Digital Entrepreneurship (Stream V)	6 ECTS
8156 Internship project (compulsory)	18 ECTS

### 1.3. COURSE STRUCTURE AND STREAMS



### 1.4. ELECTIVE COURSES, TEACHING, EXAMS AND GRADUATION

#### 1.4.1 Elective courses information

##### Language Courses

The language course is optional. Students may choose one of the three foreign language courses (English, French, German) taught at the University. The language course grade in the first 2 academic years (English Language I, II, III, IV, French Language I, II, III, IV, German Language I, II, III, IV) will not be calculated in the final Grade Point Average of the awarded degree. The language course grade of the 3<sup>rd</sup> academic year (English Language V, VI, French Language V, VI, German Language V, VI) is calculated in the Grade Point Average of the degree awarded.

##### Current Issues and Trends in Management and Technology

This course is an optional course taught in the first semester, and it is only offered to first year students. The course grade is calculated in the Grade Point average of the awarded degree.

##### Final Year Project

From the 6th semester onwards, students are given the opportunity to write a thesis (mostly research) under the close supervision of Department University staff. This course is optional for those who have already chosen a specific strand.

## **Pedagogy and Teaching Program of Studies**

The University also offers a program of studies in the fields of education and teaching. Its duration is one year (two semesters) and is only available for senior students (in the 7th, 8th semester of studies). Its courses are:

8301 Introduction to Pedagogy

8302 General and Developmental Psychology

8303 Education Assessment

8304 Special Education Methodology - Courses in Specialty Teaching (Economics, Computer Science)

8306 Quality in education and teaching

8305 Organization and Management of Education and Educational Institutions

8307 Introduction to Methodology of Teaching

8308 Introduction to ICT - Pedagogical implementation in education

8309 Teacher Training Internship (T.I.) I

8310 Teacher Training Internship (T.I.) II

### **1.4.2 Teaching, registering for courses and re-assessment**

#### **Duration of taught courses**

- Course teaching and examination duration is eight (8) semesters
- The courses are taught for 13 weeks every semester
- Each course is taught for four hours per week
- Each course has a credit load of six (6) ECTS units and eighteen (18) for the Internship project

#### **Seminars and Workshops**

In most courses, teaching is complemented by special seminars, during which problems are solved and students' questions are addressed. In the Computer Laboratory, special workshops are organized for courses requiring IT infrastructure.

#### **Registering for courses**

Registering for courses takes place twice during the academic year (following an announcement by Department Secretariat concerning the deadline for registering): a) in October (fall semester course registration) and b) in February (fall semester course registration). Registering for courses is mandatory so that i) students can sit for course exams and ii) academic books are distributed to students who have registered for the said courses.

It is noted that in September students are allowed to take exams only in courses they have already registered for in the fall and spring semester period of the current academic year.

## **Course Reassessment**

Students have the right to be reassessed in four (4) courses throughout their studies. Requests for reassessment shall be submitted along with their course registration on a separate form; courses for which they wish to be reassessed should be included in their registration form.

Students who fulfill graduation requirements and apply for graduation automatically forfeit their right to reassessment.

### **1.4.3 Exams, Grades and Graduation**

At the end of each semester, students take written exams for each course. There are three examination periods:

- January (written exams for fall semester courses)
- June (written exams for spring semester courses)
- September (written exams for both fall and spring semester courses)

### **Graduation prerequisites**

- Course registration and attendance for at least 8 semesters
- Attending and passing all 37 courses
- Successful completion of an internship in the 8th semester

### **Marking Scheme**

The grade for each subject is expressed in the number range from zero (0) to ten (10), including half points. The passing mark is five (5).

The Rating Scale for a degree, which is calculated, based on the average of all courses, is as follows:

- 10 to 8.51      Honors
- 8.50 to 6.51    Very Good
- 6.50 to 5        Good

## **1.5 STREAMS, INTERNSHIP PROJECT, CAREER PROSPECTS AND ALUMNI**

### **1.5.1 Streams**

The five currently available streams are the following

- Stream I: Operations Research and Management Science
- Stream II: Information Systems and Technologies
- Stream III: Strategy and Human Resources
- Stream IV: Operations and Supply Chain Management
- Stream V: Electronic Business, Innovation and Entrepreneurship

#### **Stream I: Operations Research and Management Science**

Operations Research, as a well-established approach to modeling and solving decision problems, and Management Science, as its contemporary and enlarged version, define a continuously evolving scientific area, which is in fact at its best during the last decade, exactly because of the increasing size and complexity of modern decision problems.

Hence this stream offers the tools and methods regarding the mathematical modeling and computational solving of the entire set of applications examined within the undergraduate degree of our Department (Logistics, Production, Services, Finance, Human Resources, Project Management). That is, the emphasis in this stream is on the methods, and the mathematical and algorithmic foundations, underlying these decision problems and applications.

Consequently, this stream is designed to provide a horizontal (rather than vertical) approach, in order for its graduate to be flexible and competitive as a professional. This implies that the graduate of this stream will be capable of working both as an internal analyst within a specialized organization (in the service sector or in transport and logistics or in industry) and a consultant within a consultancy firm.

In parallel, the horizontal approach of this stream leads to a solid background on analytics and computational methods for decision making, which is appropriate for multiple topics to be followed at a postgraduate level (from Computer Science to Management).

Specifically, the content of the courses in that stream includes:

- Advanced topics in Operations Research and Decision Systems
- Fundamental and specialized topics in Production and Operations Management
- Methods and approaches for Financial Engineering
- Design of algorithms and methods of Combinatorial Optimization
- Modeling of stochastic decision problems through stochastic processes or simulation

All courses include the modeling and solving of applications and case-studies as well as the introduction to relevant software or the coding of algorithms through a programming language.

### **Stream II: Information Systems and Technologies**

Informatics has drastically changed the way we work, communicate, learn, socialize, and entertain ourselves while at the same time transforming garage startups into business behemoths. The goal of the Information Systems and Technologies stream is to endow the students that follow it with the way of thinking, the knowledge and the training associated with the application of informatics in all areas of our life.

The stream is designed to provide specialized theoretical and practical knowledge of the complete lifecycle of the main technologies that are used in modern business, and to capitalize and deepen the basic knowledge and skills of business computing that were acquired during the student's first years.

The stream's goal is to prepare an organization's future technical or management staff to address the challenges they will face in the productive, balanced and innovative use of information technology within the organization. Students taking this stream can work

- as executives in information technology, communication, IT services, and management consulting companies,
- as executives in IT departments in medium-sized and large companies
- as specialists in emerging fields, like big data processing, social networks, mobile applications, e-learning, internet businesses, knowledge management, digital media, and digital marketing.

### **Stream III: Strategy and Human Resources**

The goal of the Strategy and Human Resources stream is to endow the students that follow it with the knowledge and the skills that are required for the management of companies and organizations in the frame of the complex entrepreneurial landscape taking into consideration the changing employment relationships.

The stream is designed to:

- provide theoretical and practical knowledge on human resources management and leadership as well as on business innovation, strategy and strategic change, in the frame of the global economy
- shape the way of thinking and develop the managerial, organizational and personal skills that are necessary for managers in order to face the contemporary challenges.
- assist students to understand the interaction between business strategy and effective human resource management

- help graduates who are interested in entrepreneurship and starting their own business to comprehend the role and the importance of effective human resource practices in a small organizations or a start-up

Students taking this stream can work as:

- Executives in every company and organization
- Executives in human resource management departments
- Executives in consulting / human resource management consulting firms
- Business trainers
- Entrepreneurs

#### **Stream IV: Operations and Supply Chain Management**

Competitiveness constitutes a key success factor for any contemporary business activity. However sustaining and enhancing business competitiveness involves producing and offering the right product, at the right time, the right place and at the right price and conditions. Operations and Supply Chain Management contributes substantially to this goal through designing and managing the integrated process of manufacturing and delivering products and/or services to markets. In particular, Operations Management aims at designing and managing the operations for producing products and/or services in an efficient and cost-effective way. Supply Chain Management aims at designing and managing the flow of materials, products, and information from suppliers to end-customers in order to offer the products and/or services at the desired time and place and at the minimum logistics cost. Integrated management of business operations and supply chain activities is envisaged in all industries.

In this context, the Operations & Supply Chain Management stream (unique in undergraduate studies offered by Greek Universities) covers the following areas:

- Design, planning and control of business operations for manufacturing products or producing services.
- Designing and Coordination of the relationships of the companies and organizations participating in a supply chain
- Planning and control of Logistics Systems, including procurement, warehousing, transportation, and distribution.

The objective of this stream is to provide students of the Department of Management Science and Technology with the skills to design, manage, and assess the entire spectrum of business operations of a company taking into account their interrelationships. The knowledge and skills offered by this stream will enable the student to pursue the following job opportunities:

- Executive or Analyst in a Product or Service Design/Manufacturing department of any type of company
- Executive or Analyst in a Supply Chain Management or Logistics department of any of company

- Executive or Analyst in 3PL, 4PL or a private or public Transport Company

### **Stream V: Electronic Business, Innovation and Entrepreneurship**

E-Business offers the opportunity to increase the competitiveness of enterprises (with innovative business models, personalized interactive services, data analysis of purchasing behavior, etc.) and the creation of new enterprises exploiting the potential of digital media (eg Internet cloud, mobile). Innovation is also a key tool in the modern business environment for increased productivity, value added services, global competitiveness and sustainable development

The purpose of this stream includes:

- Providing expertise in technical and organizational aspects of e-business
- Exploring the possibilities of innovation and strategy in dynamic new entrepreneurship
- The practical application of the above to create innovative business models / services / enterprises in a real-life environment with emphasis on the use of new advanced technologies

Graduates can be employed:

- As specialists in e-commerce, digital marketing and analytics, web applications / services, etc.
- As junior executives in companies that provide services / e-business technologies (eg service providers, etc.)
- As junior executive of consulting companies that assist and support the creation and operation of new innovative enterprises
- As executives (and founders) of innovative new businesses that leverage new technologies with emphasis on the Internet, mobile devices and other digital media

#### **1.5.2 Internship Project**

Internship constitutes a mandatory course for all students in the Department of Management Science & Technology. In order to participate in the Internship Program, students should suffice a minimum set of skills and background knowledge on Management Science acquired during semesters 1 to seven. The duration of the Internship is three months and it is conducted during the 8<sup>th</sup> semester. The final grade of the course depends on the final report and the progress of the student made during the internship in the assigned company/organization.

The Internship Program provides the students the opportunity to work in a real business environment while practicing and broadening their already acquired knowledge. The fundamental objective of Internships is to give students the opportunity to gain some work experience; a very important asset for their future professional careers. The familiarity with the operational procedures of a modern company/organization, the transition from theory to practice and the development of relationships with a company/organization that could be a potential future employer, constitute the basic ingredients of the Program.

Participating students intern in Departments/Operations (e.g. Marketing, Finance, Production, Human Resources) of the companies/organizations that offer the trainee positions. Throughout the Internship, students have the opportunity to familiarize with the operations, the practices and the managerial systems applied by the fostering companies/organizations. Moreover, students are not just observers. Instead, they participate in operations, practices and management under the close supervision of an assigned executive. In parallel, a Department's Professor supervises the employment of the student in the company/organization.

Students, alternatively, can be occupied by the fostering company/organization for a specific project. The project should be agreed with the Program's coordinators and must fall into the Department disciplines. In addition, students could also participate in the company's efforts to develop new business activities.

Below, we summarize some statistics characterizing the content and the orientation of the internship project at the Department of Management Science & Technology.

<b>Department of the company involved in the internship</b>	<b>Percentage of internships assigned</b>
Marketing	15.5%
IT	14%
Human Resources	11%
Finance	10%
Sales	10%
Management	8.5%
Logistics	6.5%
Quality Management	4.5%
Project Management	4.5%
Customer Support	4%
Other	11%

<b>Main tasks assigned during internship</b>	<b>Percentage of internships</b>
IT applications development	20%
System analysis and design	19.5%
Procedure implementation/execution	18.5%
Evaluation and quality control	11%
Market research	10.5%
Product/service design and deployment	6.5%
Techno-economic studies	5%
Development of models and algorithms	5%
Development of business plans	4%

<b>Core business of the company involved in the internship</b>	<b>Percentage of internships</b>
Information and communication technologies	20%
Commerce	14.5%

Banks	13.5%
Consultancy	11%
Services	10%
Retailing	8%
Industry	7%
Food and beverages	6.5%
Public organizations	6.5%
Other	2.5%

### 1.5.3 Career Prospects

Today and much more in the future, businesses and organizations are facing new challenges which cannot be dealt with by executives of traditional specialization. They require executives who are not only specialized in Business Administration sectors (Finance, Marketing, Accounting, Sales, Human Resources, etc.), but who will also be able to combine Management Science with modern technological applications (IT, Telecommunications, Quantitative Methods) in order to perceive, plan and implement integrated operational processes, procedures and systems, as well as business activities.

Due to their integrated technological and administrative background, our graduates have a competitive edge as executives and consultants in:

- All the traditional specializations of Management Science in the new environment of e-business, innovation, rapid organizational change and business uncertainty such as:
  - Production Management
  - Accounting and Finance
  - Marketing
  - Management of Human Resources, etc.
  - Cutting-edge specialisations such as:
    - Operations and Supply Chain Management
    - Logistics and Transportation
    - Analysis and Design of Information Systems
    - Management of Information and Telecommunication Resources / Systems
    - Quantitative Methods in Management (Operations Research)
    - Financial Engineering
    - Project Management
    - Analysis & Modeling of Business Process and Systems
    - Electronic Commerce and Digital Marketing
    - Internet and New Digital Distribution and Sales Channels
    - Software Engineering

- Enterprise and Systems Architecture
- Database Management Systems
- Knowledge and Learning Management
- Innovation Management and Entrepreneurship
- Organizational Behaviour and Leadership
- Business Strategy

Career prospects are enhanced through the streams selected by students in the 6th semester.

#### **1.5.4 Alumni**

( <http://alumni.dmst.aueb.gr/>)

The Alumni Association of the Department of Management Science and Technology (DMST Alumni) was founded in February 2005 to develop strong ties among its members. Its main goal is the continuous organizing and management of the mutual support of students and alumni of the Department from the date of registration so as to create a community-family that will work, so the old will help the younger and the young the older. This goal is achieved through the use of advanced skills, techniques and technologies.

The vision of the Association is to create a strong sense of common identity among all members of the community of DMST. It also boasts many activities, including help in job placement of graduates and organizes numerous events, conferences and seminars.

To support the increasing number of graduates continuing their studies or their career abroad, DMST Alumni has created an "Annex" in the UK, which serves the graduates who live abroad, while also supporting those living in Greece but wishing to go abroad.

The DMST alumnus is in close collaboration with the i-MBA Alumni Association (see <http://www.i-mbalumni.com/>) and the Human Resources (HR) Society (see <http://www.dmst.aueb.gr/hralumni/>).

## 1.6. DEPARTMENTAL STAFF

### 1.6.1 Faculty

#### PROFESSORS

##### **Dimitrios Bourantas**

###### ***Human Resources Management***

B.Sc. in Management, Athens University of Economics and Business, DESS - Administration des Entreprises, Univ. D'AIX - Marseille III - Institut d' Administration des Entreprises, DEA - Administration des Entreprises, Univ. De Montpellier I, M.Sc.-Economie Agro-alimentaire, Institut Agronomique Meditwranneen, Doctorat 3e Cycle - Administration des Entreprises, Univ. De Montpellier I.

---

##### **Georgios Doukidis**

###### ***Information Systems and E-Commerce***

B.Sc. in Mathematics, Aristotle University of Thessaloniki, M.Sc. in Operational Research and Ph.D. in Simulation/Artificial Intelligence, London School of Economics and Political Science.

---

##### **Georgios Giaglis**

###### ***Electronic commerce emphasizing on business applications***

B.Sc. in Information Systems, Department of Informatics, Athens University of Economics and Business, Ph.D. in Information Systems, Department of Information Systems and Computing, Brunel University.

---

##### **Georgios Ioannou**

###### ***Production and Process Management***

Diploma in Mechanical Engineering, National Technical University of Athens, M.Sc./D.I.C. in Industrial Robotics & Manufacturing Automation, Imperial College of Science, Technology and Medicine, , Ph.D. in Mechanical Engineering, University of Maryland.

---

##### **Spyros Lioukas**

###### ***Business Strategy***

Diploma in Mechanical and Electrical Engineering, National Technical University of Athens, Ph.D. Department of Economics, London Business School.

---

**Gregory Prastacos**

***Management Science and Decision Making***

B.Sc., M.Sc. in Computer Science, Ph.D. in Operations Research, Columbia University.

---

**Apostolos Refenes**

***Financial Engineering***

B.Sc. in Computer Science, Polytechnic of North London University, Ph.D. in Computer Science, University of Reading

---

**Diomidis Spinellis**

***Software Development Management and Engineering***

M.Eng. in Software Engineering, Ph.D. in Computer Science, Imperial College of Science, Technology and Medicine

---

**Christos Tarantilis**

***Operations Research, Transportation and Logistics***

B.Sc. in Mathematics, University of Patras, M.Sc. in Operational Research, London School of Economics and Political Science, Ph.D. in Operations Research and Logistics, National Technical University of Athens

---

**Konstantinos Zografos**

***Transport and Logistics***

Diploma of Civil Engineering, University of Patras, M.Sc. in Transportation Engineering and Planning, University of Connecticut, Ph.D., University of Connecticut,

---

## **ASSOCIATE PROFESSORS**

**Angeliki Poulimenakou**

***Management of Information Systems***

B.Sc. in Mathematics, University of Athens, M.Sc., Ph.D. in Information Systems, London School of Economics and Political Science.

---

**Athanasia Pouloudi**

### ***Management of Information Systems***

B.Sc. in Applied Informatics, Athens University of Economics and Business, M.Sc. in Analysis, Design and Management of Information Systems, Ph.D. in Information Systems, London School of Economics and Political Science, M.Sc. in Teaching for Higher Education, Brunel University.

---

### **Eric Soderquist**

#### ***Innovation and Knowledge Management***

B.Sc., M.Sc. in Industrial Engineering, Royal Institute of Technology, Stockholm, Ph.D. in Business Administration, Brunel University,

---

### **Ioannis Spanos**

#### ***Business Strategy***

B.Sc. in Business Administration, MBA (Business Administration), Ph.D. in Operational Research Science and Marketing, Athens University of Economics and Business.

---

### **ASSISTANT PROFESSORS**

### **Damianos Chatziantoniou**

#### ***Information Systems and Databases***

B.Sc. in Mathematics, University of Athens, M.Sc. in Computer Science, New York University, Ph.D. in Computer Science, Columbia University.

---

### **Georgios Lekakos**

#### ***Business Exploitation of Digital Content***

B.Sc. in Mathematics, University of Thessaloniki, M.Sc. in Advanced Methods in Computer Science, University of London, Ph.D. in Management Science and Technology, Athens University of Economics and Business.

---

### **Ioannis Mourtos**

#### ***Mathematic Programming, Combinational Optimization***

Diploma in Computer Engineering and Informatics, University of Patras, M.Sc., Ph.D. in Operational Research, London School of Economics and Political Science.

---

### **Ioannis Nikolaou**

#### ***Organisational Behavior***

B.Sc. in Psychology, University of Crete, M.Sc., Ph.D. in Organizational Psychology, University of Manchester, Institute of Science & Technology (UMIST).

---

**Katerina Pramadari**

***Advanced Sales Techniques and Technologies***

B.Sc. in Applied Informatics, M.Sc, Information Systems and Ph.D. in Management Science and Technology, Athens University of Economics and Business.

---

**Irini Voudouri**

***Management and Technology***

Diploma in Electrical Engineering, National Technical University of Athens, B.Sc. Ecole Nationale Supérieure des Telecommunications (ENST), TELECOM - Paris, Diplome d' Etudes Approfondies (D.E.A.), Université Paris X / H.E.C / E.S.S.E.C, Ph.D, Université Paris X-Nanterre.

---

**Adam Vrechopoulos**

***Digital Means and Personalised Services***

B.Sc. in Applied Informatics, Athens University of Economics and Business, MBA (Business Administration), Athens Laboratory of Business Administration, Ph.D. in Electronic Retailing & Marketing, Brunel University.

---

**LECTURERS**

**Konstantinos Androutsopoulos**

***Analysis and Planning of Distribution and Transportation Systems***

B.Sc. in Mathematics, University of Athens, M.Sc. in Operational Research and Statistics, University of Essex, Ph.D. in Management Science and Technology, Athens University of Economics and Business.

---

**Emmanouil Kritikos**

***Operational Research and Information Systems***

B.Sc. in Mathematics, University of Athens, M.Sc. in Informatics and Operational Research, University of Athens, Ph.D. in Information and Management Science, Athens University of Economics and Business.

---

## **PROFESSORS EMERITI**

### **Andreas Kintis**

B.Sc. in Economics, Athens University of Economics and Business, M.Sc. in Economics University of Wisconsin, Ph.D. in Econometrics, University of Manchester.

---

### **Panagiotis Miliotis**

B.Sc. in Mechanical and Electrical Engineering, National Technical University of Athens, M.Sc., Ph.D. in Operational Research, London School of Economics and Political Science.

## **1.6.2 Special Technical Laboratorial Staff**

### **Stavros Grigorakakis**

B.Sc. in Physics, University of Athens, M.Sc. in Solid State Physics, University of Athens.

---

### **Vasilki Tagalaki**

B.Sc. in Mathematics, University of the Aegean, M.Sc. in Information Systems, Athens University of Economics and Business.

## **1.6.3 Administrative Staff**

## **SECRETARIAT OF THE DEPARTMENT**

### **Chrysoula Sakellariou (Secretariat)**

B.Sc. in Primary Education, University of Athens.

---

### **Elena Kanderaki**

B.Sc. in Communication and Mass Media, Panteion University, M.Sc. in Management of Cultural Heritage of the Complutense, University of Madrid.

---

### **Sofia Filidou**

B.Sc. in Health Care and Social Administration, Technological Educational Institute of Athens.

---

### **Victoria Filippopoulou**

B.Sc. in English Language & Literature, University of Athens.

---

**Dimitra Chatzidimitriou**

B.Sc. in Business Administration, University of Piraeus.

---

**PUBLIC RELATIONS**

**Maria Tsaousoglou**

B.Sc. in Political Science, University of Athens, M.Sc. in International and European Studies, Athens University of Economics and Business.

---

**INFORMATICS LABORATORY STAFF**

**Georgios Zouganelis**

Programming Certificate,, Undergraduate student in Computer Science, Hellenic Open University.

**Sofoklis Stouraitis**

B.Sc. in Mathematics, University of Patras.

---

**Christos Lazaris**

B.Sc. in Physics, University of Athens, MBA, Athens University of Economics and Business.

## **1.7 EVALUATION PROCEDURES**

On the occasion of the public debate conducted lately regarding the evaluation of Departments and Greek universities in general, we will refer to the successful efforts made in this regard in the Department of Management Science and Technology in recent years.

The first evaluation initiative refers to the quality of education, where students evaluate the teaching staff and courses every year since the inception of the Department in 2000. This process involves all students who attend classes, and the evaluation (as well as the analysis of results) takes place at the end of each semester using pertinent scientific methods.

The results are discussed and analyzed in the General Assembly with the aim of improving the educational process by all teachers and solving problems where necessary. Based on the evaluation results, the General Assembly decides and awards every year the "Distinguished Teaching Award" (award of great importance in universities in North America and Europe).

The second initiative refers to the annual evaluation of faculty members under promotion. The annual progress reports of the faculty members and the evaluation process take place every autumn (chaired by the Deputy Chairman) so as to best plan for the following academic year. The desired criteria of the Department for the various levels (quantitative or qualitative) are known to all interested parties and divided into five categories: a) Publications in International Journals, b) Research c) Quality and Participation in Education, d) International Scientific Activity and e) Administrative work in the University and professional initiatives.

The third initiative relates to the external evaluation carried out for the Department by renowned academics from abroad. These academics are invited by the Department for a week and they evaluate overall educational and technological infrastructure. Their proposals are discussed in the General Assembly and implemented in the next academic year. Each year, the Department is evaluated by 3-4 academics from universities such as LSE, Aston University, Erasmus University, University of Strathclyde, Manchester Business School, etc.

As part of the external evaluation, the graduate program of the Department, MBA International, was certified in 2005 by the international organization AMBA (Association of MBAs), which is considered the most authoritative certification for MBA programs worldwide today.

## 2. DESCRIPTION OF COURSES

### 2.1 FIRST SEMESTER

#### **Mathematics I**

The objective of the course is to teach the basic mathematical concepts of differential and integral calculus with emphasis on the utilisation of mathematics in the development of models that serve applications in economics and management science. Furthermore, the students use the EXCEL, MATHEMATICA, and MATLAB in applications of differential and integral calculus. The course material is designed as to develop the mathematical background needed in other courses of the curriculum.

#### **Introduction to Management**

Management as a field of scientific inquiry, as well as every day practice, is particularly important because it is critically associated with the efficient and effective functioning of firms and organizations. As such the main objective of this course is to introduce students to the basic Management principles and functions. Topics include: (a) management fundamentals, (b) analysis of internal and external environment, (c) planning and decision making, (d) organizational architecture, (e) and leadership and human capital.

#### **Introduction to Computer Science**

The learning objectives of the course are:

- To understand the basic principles of Computer Science
- To familiarize students with basic concepts regarding information technologies, computing systems, software/hardware components and communication networks
- To familiarize students with the basic principles of procedural programming and the C programming language.
- To familiarize students with the process of building software, while working in groups and under specific deadlines.

#### **Introduction to Marketing**

The course “Introduction to Marketing” introduces the student to the basic concepts and principles of the Marketing science contributing to the acquisition of useful knowledge through the theoretical review of the topic and the analytical presentation of the relevant practical issues, giving particular emphasis in the connection of theory with practice. Indicatively, the course includes the modules of

shopper behaviour (business and consumer), Marketing research, product, distribution, pricing and integrated Marketing communications strategies, Marketing environment, segmentation, targeting and positioning, etc. Finally, in the context of the course it is attempted to introduce students to the Marketing scientific research by presenting and discussing its contribution both to theoretical and practical level.

### **Microeconomic Analysis**

The objective of the course is to teach students the basic concepts and tools of microeconomic analysis. Specifically, they are introduced to: (a) the theory of the consumer and, by extension, the demand; (b) the theory of the producer and, by extension, the supply; (c) the operation of the market under different structures (perfect competition, monopoly, oligopoly, monopolistic competition), asymmetric information, variants of the main models; and (d) general equilibrium theory. These are complemented with discussions regarding the effects of government policies, and an introduction to game theory.

## **2.2 SECOND SEMESTER**

### **Mathematics II**

The goal of the course is to teach students advanced topics in mathematics for Business & Economics. The course is designed to provide both intuition and deep understanding of concepts in Linear Algebra, Calculus of multiple variable functions Implicit functions, Differential Equations, Difference Equations and Constrained Optimization Methods for multiple variable functions. The first semester mathematics on Differential and Integral Calculus is a prerequisite. The course helps students familiarize real life applications that illustrate the use of mathematical concepts in business economics and technology as well as in decision sciences. During the course, students are encouraged to computer usage via modern computational platforms such as MATHEMATICA, MATLAB, and EXCEL. Specific tutorials for the Mathematica are offered during the course.

### **Quantitative Methods in Economics & Business I**

The objectives of this course is to introduce the students to the fundamental concepts of probability, as applied to modeling business, economics and information technology issues, including a gentle introduction to simulation. The course will serve as an introduction to concepts that will further be elaborated in more specialized courses such as stochastic models, simulation of processes, finance and econometrics etc.

### **Programming I**

The course introduces students to the fundamental concepts of programming using the Java programming language. At the first part of the course, students are familiarized with the basics of

programming (development of algorithms, Object-oriented design) applied through Java programming. At the second part of the course, the most significant aspects of the Java language are analyzed (classes, methods, variables, tables, control statements, inheritance) in order to provide students the ability to develop their own Java programs. The expected learning outcome is to enable students to design object-oriented programs and develop programming skills using the Java language through a number of lab exercises and personal assignments. The scalable learning method employed (from small program segments to larger – real life – programs) is expected to exercise students in the analytical programming thinking and provide them with the necessary knowledge to build their own programs in a systematic way.

### **Accounting**

The course introduces students to the basic concepts, assumptions and principles of financial accounting. The students familiarize themselves with the format of the income statement, the statement of changes in equity, and the balance sheet. The students learn how to record business transactions in the journal and how to post them to the general ledger. They also learn how to adjust the accounts, close the books, and prepare basic financial statements. Finally, the students are introduced to the accounting treatment of inventories, accounts receivable, and asset depreciation methods.

### **Macroeconomic Analysis**

The objective of the course is to teach students the basic concepts and tools of macroeconomic analysis. Specifically, they are introduced to: (a) national income accounting, and the simple model of output and aggregate demand; (b) money and banking; (c) the IS-LM-FIL model which determines the aggregate demand; the determinants of aggregate supply, and tracking the effects of fiscal or monetary or other policies on the equilibrium level of output, prices and interest rates; (d) unemployment and inflation; (e) business cycles and economic growth. These are complemented with an initiation to economic research and a demonstration of the techniques employed in the econometric estimation of the equations involved.

### **Contemporary Issues & Trends in Management & Technology**

The course has a double aim: 1) to introduce basic concepts related to business functions and familiarize students with contemporary issues and trends on management and technology and 2) to familiarize students with the methodologies of research projects

## **2.3 THIRD SEMESTER**

### **Decision Making**

Decision-Making is one of the most important functions of management. Today's business environment is characterized by high competition, constant changes, extensive globalization, large availability of data and information, and the huge penetration of information and telecommunications technology. In this environment, decision making is increasingly based on the use and analysis of data, through the development of "models", and the use of user-friendly, PC-based computer packages.

This is what this course is all about. The emphasis of the course will be on understanding and formulating complex problems, as they appear in today's business environment, developing the appropriate decision models, and using them for effective decision making.

### **Quantitative Methods in Economics & Business II**

The objective of this course is to introduce the students to the basic principles of statistical inference and modeling in order to be able to use them in problems of management science. A part of the course will be concerned with an introduction to the essential concepts of statistics so that the students may subsequently be taught and understand regression methodology, which is widely used in economics and management.

### **Organizational Behavior and Leadership**

The course includes the study of the fundamental knowledge on the description, explanation and management of individual and team behaviors found in organizations. It aims to develop the ability to manage people as individuals and as teams. After the course the students will:

- Understand the personality, the attitudes and behaviors of people in the working environment.
- Obtain a conceptual and theoretical background on leadership
- Be able to motivate their colleagues and partners
- Be able to develop effective teams
- Be able to communicate successfully
- Understand better the corporate culture of their organization

### **Database Management Systems**

Databases began as a simple application in early 70s and grew to one of the most important fields in computer industry, touching hundreds of IT applications. This outcome was somehow expected, since the focus of database research is the description, storage and usage of data. To describe a database application we need a data model, such as the entity-relationship or the relational model. To retrieve and make use of the stored data, we need a generic query language, such as SQL. Finally, there are numerous ways to store data, depending on how this will be used. The goal of this course is to educate students on how to design properly, build efficiently and use intelligently a database. Furthermore, it

should make apparent the various trade-offs that exist in designing, building and using such an application.

### **Programming II**

At the end of this course students should be able to:

- have a basic knowledge of the methods and programming techniques used for implementing information systems
- design and build moderately complex applications
- use ready-made libraries and data structures
- reuse design patterns to structure their code
- process complex data structures and sources
- Evaluate alternative technologies and information system evaluation strategies

## **2.4 FOURTH SEMESTER**

### **Mathematical Programming**

This course examines the theory and the algorithms of Mathematical Programming and their relations to other areas (e.g., Game Theory). In particular, the course includes the Linear Programming problem, Duality Theory, basic algorithms for Linear Programming, introductory concepts of Non-Linear Programming and Integer Programming, problem formulation in Mathematical Programming, Dynamic Programming and Linear Programming's relation with Game Theory. The expected outcome is the solid understanding of all the above and, in addition, the applications of Mathematical Programming arising from real-life settings. More specific outcomes include the in-depth knowledge of mathematical structures and properties of classes of problems, the use of algorithms but also the design of variants for special cases and, last, the modeling and solving of relevant practical problems.

The purpose of this course is the in-depth understanding of the theory and applications of Mathematical Programming. More specific learning outcomes include:

- The understanding of mathematical structure and properties of fundamental problem classes (e.g., linear, non-linear and integer programming, dynamic programming)
- The use of Mathematical Programming algorithms for problem solving but also the design of their variants for special problem cases.
- The formulation and solving of problems arising from practical, real-life settings.

### **Financial Management**

The objective of the course is to introduce the student of management science to the fundamentals of financial management. To this end, the course revolves around the functions of the financial system,

the concept of time value of money, corporate investment and financing decisions, investment appraisal criteria and security pricing. Students will get a chance to test their understanding of the concepts and tools covered in lectures via either an elective group coursework or a real business case study.

### **Human Resource Management**

The course aims to develop the conceptual and theoretical background of today's Human Resource Management (HRM). The course's main objectives are:

- Understanding the importance of Human Resources as the strategic factor of sustaining business success.
- Understanding the main issues of HRM in today's complex and dynamic environment.
- Learning the concepts, the theories and the tools to deal with all-important HRM issues.

### **Analysis & Design of Information Systems**

The course aims to respond to the organizational need to identify and understand problems in the management of information and processes. In this course students are exposed to methods for the systemic and systematic study and modeling of such problems, so that they can be supported by information systems. The course focuses on the identification, modeling and documentation of requirements of the various users and stakeholders that influenced and are influenced by the development of information systems. The transition from requirements to functional specifications, information system design and the development and implementation plan in the organization that will use the information system are also studied. Particular emphasis is given on the role of the human agent in information systems development. The practical part of the course concerns the analysis and design of information systems using tools such as Soft Systems Methodology (SSM), the Unified Modeling Language (UML) and the website design language HTML. At the end of this course, students will be able to understand the information systems development process and have the essential theoretical and practical knowledge necessary for its effective management.

### **Networks, Algorithms and Data Structures**

The course aims at introducing students to the basic architectures and technologies of computer networks, emphasizing on the Internet and digital social media. It also covers aspects of algorithms, complexity and basic data structures for computer programming.

Students will:

- Understand the basic principles governing the Internet
- Learn how the most popular Internet applications work
- Understand how data are transferred and routed via the Internet
- Understand how algorithms and data structures are related in solving computing problems

## **2.5 FIFTH SEMESTER**

### **Project Management**

Managing projects constitutes a major management operation in any contemporary company or organization. This course deals with the techniques, methods, and tools used for planning, controlling and assessing projects. After completing this course the students will be able to:

- understand methods and techniques related to project selection, organization, planning, scheduling, control, and evaluation
- select and evaluate projects
- schedule optimally the project evolution
- monitor and manage a project
- implement processes for project control.

### **Optimization Methods in Management Science**

This course focuses on the decision-making process of analyzing, defining, representing and solving a numerous business problems and cases, employing a number of optimization methods and tools. The optimization methods introduced are applied to solve a broad number of real-world case studies from different domains and industries such as transportation and logistics, telecommunications, manufacturing and service operations, health care management, tourist management, maritime and shipping.

On completion of this course, students should be able to:

- understand the computational characteristics of different types of business problems
- design effective optimization methods for solving both complex and realistic size management science applications

### **Management and Information Technology**

The course objectives include:

- To comprehend the basic dimensions of the use of Information and Communications Technologies (ICT) in organizations and the main issues that is connected with their effective exploitation.
- To acquire the necessary conceptual background in order to comprehend the issues that the managers deal with, regarding ICTs.
- To get to know the main functions of the appropriate management of information systems (IS) in organizations and the fundamental theoretical and practical models that lead to the management of this operation.

- To comprehend how ICTs affect the organisational structure of businesses and their relations with the business environment

### **Work & Organizational Psychology**

Organizational Psychology is an area of applied psychology. It investigates employees' interaction at workplace using social sciences' theories and research designs, exploring simultaneously relationships amongst employees. The course is designed to offer an introduction to the field of work and organizational psychology in relations to courses such as Human Resource Management and Organizational Behaviour and Leadership. When completing this course students will be able to use the models, constructs and practical implications of organizational psychology in order to perform more effectively at work in benefit of themselves and their organizations.

### **Information Systems Implementation and Architecture**

The aim of this course is to provide students with a complete view of information systems development, in general, and web applications in particular, as well as the technologies used in this context and the applications that can be supported. During the course, practical and theoretical subjects will be covered concerning software design, architectural design, development and control, contemporary software development environments, tools and Internet technologies. Emphasis will be placed on layered architecture design, application design, implementation and testing. At the same time, this course aims to complement and exploit the knowledge students have already acquired in previous courses, such as databases, systems analysis and design, programming etc., in order to support the design and development of a full functional web-site, which constitutes the practical part of the course.

## **2.6 SIXTH SEMESTER**

### **Business Strategy**

The Course introduces students to issues of Business Strategy while providing them with skills regarding the application of concepts and techniques. It examines issues along the whole spectrum from strategy formulation to strategy implementation. It refers to theories and practice, using examples from real enterprises and cases presentation

*Stream I: Operations Research & Management Science*

### **Topics in Operations Research and Decision Systems**

This course introduces advanced optimization tools and techniques with the main emphasis being on the application of computational intelligence algorithms to different problems and cases which arise

in business and industry, such as vehicle routing and scheduling problems, packing problems, facility location and layout problems, project scheduling with resource constraints problems, workforce and manpower scheduling problems, timetabling problems, machine scheduling problems, port logistics problems, telecom problems, waste management problems, health care problems, maritime and shipping problems.

On completion of this course, students should be able to:

- broaden their exposure to computational methodologies;
- analyze and design effective computational intelligence algorithms for complex business problems;
- provide examples and cases of how the computational intelligence algorithms can be used to solve real-life problems.

### **Production & Operations Management**

The goal of the course is to introduce the student to the design, analysis, reengineering, optimization and functional control of modern companies and addresses the key elements that forge the effective management of an organization's limited resources. The same principles hold whether the organization manufactures a product or provides a service, operates in the public or private sector, or is profit or non-profit oriented. Through the course, the student will understand the organizational structure and the various components, sub-systems and functions of a Production or Service Provisioning System, and will gain significant knowledge on the problems arising during their design and operation, as well as on the problem-solving methods through analytical and computational techniques. The topics of the course cover most complex and interrelated business processes inherent in the systems operation, e.g., product and process design, operations planning and scheduling, facility location and layout, etc.

## *Stream II: Information Systems & Technologies*

### **Digital Content Management & Human-Computer Interaction**

The course introduces students to the basic concepts of Human-Computer Interaction, explaining fundamental concepts such the role of user's mental model of interaction, usability design principles, evaluation methods and techniques. Going beyond the fundamentals, at the second part of the course, advanced methods for improving user experience are presented in detail, including analyzing web site data (using google analytics), recommendation algorithms, exploiting social media and SEO techniques to improve site's effectiveness. The expected learning outcomes include:

- Understanding of the fundamental principles of Human – Computer Interaction and the related concepts (e.g. interactivity)

- Development of skills that will enable the design and development of usable interactive systems
- Understanding of content architecture principles and practical tools
- Understanding and development implementation skills for the evaluation of interactive systems in terms of usability
- Design and development of value added services such as intelligent interfaces and personalization services
- Familiarization with the use of social media, Search Engine Optimization techniques as well as data analysis techniques (Google analytics, A/B testing)

### **Analysis & Modeling of Business Processes and Systems**

The objective of the course is to introduce basic concepts and techniques related to business analysis of IT enabled work systems. The students will comprehend how different types of business processes and technologies, within a specific human, work and organisational context can be analysed in order to identify and implement improvements and innovations. Emphasis is given on techniques for the analysis of structures, performance, infrastructures and risk in organisational and societal settings empowered by technology. Further, the student will be introduced to techniques and tools for business process modelling and evaluation and will apply them to test cases in lab sessions. Students will also learn how to conduct a business process analysis study and will be asked to apply these skills in real life case setting.

### **Advanced Topics in Software Engineering**

While most Information Systems and Computer Science courses traditionally deal with the development of new systems, in practice developers spend the largest part of their time in software life-cycle activities that follow the development phase. The objective of the course is to allow students to read, understand, and evaluate a system's software elements (code, structure, architecture). Having followed this course, students should be able to intelligently decide on how existing systems will be maintained, setup design and evolution strategies for legacy code, and prescribe the use of refactoring for dealing with architectural mismatches and low-quality code. An innovative aspect of the course involves the use of Open Source Software (OSS) in course examples and exercises. Through the study of OSS students will be able to see how non-trivial applications like the Apache Web server, the Postgres Relational Database Management System, the Jakarta Java servlet container and the Cocoon framework are structured.

### *Stream III: Strategy & Human Resource Management*

#### **Quality Management**

Product and service quality are very important as they not only determine customer and user satisfaction, but also the financial performance and even the survival of organizations. Quality can also be a differentiator in the marketplace, a key to optimized resource utilization and a factor that contributes to reducing the cost of production or service provision.

Quality Management departs from a clear strategy, requires an effective organizational structure, an HR policy that recognizes the importance of the contribution of all, use of specific tools and methods, and a managerial 'discipline' that must immerse throughout the whole supply chain. Professional Quality Management is today as important as effective financial management, marketing, HRM or any other area of management.

The course introduces students to the basic principles of a customer-oriented business environment where total quality and continuous improvement are central preoccupations irrespective of the kind of organization or the level within that organization.

#### **Advanced topics in Organizational Behavior & Human Resource Management**

Aim of this course is to transfer in practice the theoretical knowledge acquired in previous, similar courses (e.g. Organizational Behavior, Work & Organizational Psychology, Human Resources Management). It will introduce the students who have chosen the perspective stream into the practical applications of the main concepts providing them with the necessary tools to work in a Human Resources department. Upon completion, the students will have acquired a full knowledge of the functions and daily operations of the Human Resources Department.

### *Stream IV: Operations & Supply Chain Management*

#### **Supply Chain Management**

Competitiveness constitutes a key success factor for any contemporary business activity. However sustaining and enhancing business competitiveness involves producing and offering the right product, at the right time, the right place and at the right price and conditions. Supply Chain Management contributes substantially to this goal through managing the integrated process of delivering products and/or services to markets. This course presents the major operations involved in a supply chain, and elaborates on the methods, techniques and tools used for managing the supply chain for products and services. After completing this course the students will be able to:

- understand concepts and methods regarding the planning, design and operation of Supply Chains,

- understand the strategic role of Supply Chain Management in the Global Business Environment.
- understand the Emerging Supply Chain Management (SCM) trends in the Global Business Environment, the modelling of SCM decisions, and the assessment of Supply Chain performance
- understand the role of Information and Communication Technologies in Supply Chain Management
- understand, analyze, and plan the primary and secondary (complementary) logistics processes
- evaluate the effectiveness of logistical processes of a company / organization.

### **Production & Operations Management**

The goal of the course is to introduce the student to the design, analysis, reengineering, optimization and functional control of modern companies and addresses the key elements that forge the effective management of an organization's limited resources. The same principles hold whether the organization manufactures a product or provides a service, operates in the public or private sector, or is profit or non-profit oriented. Through the course, the student will understand the organizational structure and the various components, sub-systems and functions of a Production or Service Provisioning System, and will gain significant knowledge on the problems arising during their design and operation, as well as on the problem-solving methods through analytical and computational techniques. The topics of the course cover most complex and interrelated business processes inherent in the systems operation, e.g., product and process design, operations planning and scheduling, facility location and layout, etc.

### **Topics in Operations Research and Decision Systems**

This course introduces advanced optimization tools and techniques with the main emphasis being on the application of computational intelligence algorithms to different problems and cases which arise in business and industry, such as vehicle routing and scheduling problems, packing problems, facility location and layout problems, project scheduling with resource constraints problems, workforce and manpower scheduling problems, timetabling problems, machine scheduling problems, port logistics problems, telecom problems, waste management problems, health care problems, maritime and shipping problems.

On completion of this course, students should be able to:

- broaden their exposure to computational methodologies;
- analyze and design effective computational intelligence algorithms for complex business problems;
- provide examples and cases of how the computational intelligence algorithms can be used to solve real-life problems.

### **Electronic Commerce and Internet Applications**

The growth of the Internet and electronic commerce over the last decade has radically changed the communication landscape between business and consumers, business partners, government and citizens etc. Moreover, new developments around social networking and the interaction through emerging communication channels, such as mobile, have created a new landscape for innovation and entrepreneurship. The objective of this course is to develop the students' theoretical and technical background in order for them to understand the possibilities and limitations of the new technologies and business models and be in the position to exploit the new business opportunities that open up in this area. Different e-business applications and case studies are examined from both a business and technical perspective. Topics discussed include, among others, the required technical infrastructure, critical aspects of online promotion and selling, the interconnection of systems, and in general various practical topics associated to the business exploitation and implementation of e-business applications. Students also have the possibility to acquire practical knowledge and skills working on the implementation of an online store using open source software platforms and optionally on the development of mobile apps and the interconnection of systems.

### **Digital Marketing**

The Information and Communication Technologies (ICT) effects on the Marketing theoretical models, strategies and practices have created educational needs upon the new knowledge emerging in the topic of Digital Marketing. The scientific research has illustrated the opportunities and capabilities of applying and extending the existing Marketing knowledge in the context of new conditions, requirements and particular characteristics of the Digital environment mainly since the emergence of the Web. Indicatively, the diffusion of alternative communication and shopping channels usage, the introduction of electronic applications with increased customization and personalization capabilities and the penetration of advanced applications for data collection, processing and exploitation have created new research areas and relevant theoretical and practical issues. Finally, while the course adopts an interdisciplinary approach (i.e. Marketing and Information Systems) it does not focus on “technical” issues and, thus, it does not require advanced Information Technology skills from students. The learning outcomes of the course as summarized as follows:

- Acquire the necessary theoretical background in the area of Digital Marketing by adopting an interdisciplinary approach
- Recognize the research opportunities that emerge in the area of Digital Marketing and obtain experience in the design and execution of relevant research designs

- Understand the basic dimensions of the practical use of Digital Marketing applications in organizations and the basic issues that are connected with their effective exploitation
- Obtain experience regarding the capabilities offered by Information Systems for implementing actions in the context of strategic Marketing planning.

## **2.7 SEVENTH SEMESTER**

### **Entrepreneurship**

This course introduces students to the notion of entrepreneurship while providing them with skills and knowledge regarding the whole cycle of the entrepreneurial process from opportunity identification and assessment to mobilising resources creating the enterprise, managing for growth and ending the new venture. An introduction to the notion of social entrepreneurship and the development of social enterprises is also made in the frame of the course. More specifically the course includes three parts, referring to the:

- Notion and importance of entrepreneurship and its environment
- Entrepreneurial process: Creativity and business idea, business model, business planning, securing resources and agreements, growth strategies and exit strategies.
- Sources of capital and financing in all stages of growth.

### *Stream I: Operations Research & Management Science*

### **Stochastic Modeling & Simulation**

This course examines on one hand the fundamental types of stochastic models employed within Management Science and, on the other hand, the use of simulation techniques in cases where stochastic methods are of limited applicability. In addition, it discusses the application of all the above in real settings of decision support, using simulation software packages.

Stochastic modeling includes mostly Markov processes and Markov chains, while also examining topics in Queuing Theory, Replacement Theory and basic principles of Stochastic Dynamic Programming

Simulation refers mostly to discrete event simulation, while presenting also techniques for model building and validation and analysis of simulation output. Emphasis is given to the construction of simulation models through appropriate software packages, hence part of the course is implemented via lab exercises and tutorials and through a compulsory project which includes all steps of applying simulation on a real-life problem.

### **Combinatorial Optimization**

The course deals with the theory, algorithms and applications of discrete (also known as combinatorial) optimization with an emphasis on problems regarding flows, paths and matchings on

graphs. More specifically, the course presents algorithms for the problems of shortest path, maximum flow, minimum-cost flow, maximum-cardinality and maximum-weight matchings (mostly regarding bipartite graphs) and, last, stable matchings and b-matchings on bipartite graphs.

Apart from solving such problems using specialized combinatorial algorithms, the students are also expected to formulate applications and real-life problems as flow, path or matching problems on graphs. In addition, this course introduces general methods for discrete optimization problems that can be modelled as Linear Integer Programs, i.e., Branch-and-Bound and Branch-and-Cut.

The purpose of this course is the understanding of algorithmic design specifically for discrete optimization algorithms defined on graphs and integer programming methods. Apart from understanding all related notions, the purpose is to investigate the application of such algorithms (i.e., algorithms for paths, flows and matchings) on real-life problems.

### **Financial Engineering**

Financial Engineering provides the means of implementing financial innovation through the use of financial instruments like forwards, futures, swaps and options. Usual applications include the restructuring of corporate or investor cash flows in order to achieve tactical and strategic targets, with particular emphasis on risk management. Financial Engineering is at the forefront of innovation and development in financial markets, granting private investors, corporations and institutions almost complete flexibility in transforming existing cash flows into new cash flows with different quantitative and qualitative characteristics. This course aims to provide the tools, methodologies and skills necessary in order to understand, implement and innovate in this very active environment. Real case studies will be presented, demonstrating practical applications of the taught material.

## *Stream II: Information Systems & Technologies*

### **Information Resource Management**

In this course, students learn to appreciate the opportunities and challenges from the use of ICTs, though in-class analysis and discussion of case studies from the international context, so that they can identify and manage similar situations efficiently when encountered in practice. Students in this advanced course study how information systems in organizations can be managed so that information resources are efficiently used. Four main axes define the learning outcomes of the course:

- The strategic role of IT in contemporary business and strategic planning for information resources and systems
- The business role of IT as a tool for supporting and promoting business functions and management and the managerial skills associated with this role
- The functional structure (department/ services) of IT in contemporary business, its human resources and management
- Broader social aspects related to the use of IT in contemporary business

## **Business Intelligence and Big Data Analytics**

The usage of data in enterprise decision making has been identified as one of the most critical element for success in our data-driven society. The objective of the course is to present the theory and the techniques used in modern data analysis systems in a business context. This includes, architectures, algorithms, tools, applications and commercial systems.

### *Stream III: Strategy & Human Resource Management*

## **Personal Skills Development**

The successful manager nowadays is not the one who possesses the technical or managerial knowledge but the one who has developed appropriately the necessary personal skills to use this knowledge effectively. The current course attempts to “assist” students in developing these competencies, through a program of self-assessment and evaluation with a strong emphasis on interaction with colleagues.

## **E-learning and Knowledge Management**

This course offers an overview of the most recent trends in learning and knowledge management in companies and organizations. Students will be introduced to strategies, methods and technologies of organizational learning and knowledge management helping them to develop analytical, development and judgmental skills. Students will be able to relate organizational and technological choices to performance improvements in organizations in the context of changing organizational environments. Practical skill in the implementation of e-learning programs and systems are also emphasized. The course comprises two units; (1) E-Learning and (2) Knowledge Management. In the first students are introduced to concepts of organizational and workplace learning, training in the context of human resource development, and performance management. Methods and tools for digital instructional design are explained and then applied in practice by students in their course assignments. In the second unit, theoretical models as well as organizational practices concerning the creation, sharing and use of organizational knowledge and intellectual capital are explained. Cases from practice in various companies and organizations will be examined and the latest trends in knowledge management presented and analyzed.

## **Advanced Topics in Strategy and Innovation**

The purpose of this course is to make students understand selected issues related to strategy and innovation. Specifically to promote understanding of critical issues in the areas of strategy implementation and strategic change, governance and corporate responsibility, as well as with the management of innovation. It aims at providing knowledge, and also at developing students’ skills in the

application of strategy concepts, methods and tools in dealing with the specific issues addressed as well as by focusing on practical examples and cases, and application projects.

#### *Stream IV: Operations & Supply Chain Management*

##### **Enterprise Resource Planning Systems**

Enterprise Resource Planning (ERP) Systems are coherent and integrated software applications that can support a large variety of operational processes and business functions and a focal monitoring, control and coordination tool for all operations that take place in the headquarters and the distinct remote locations of modern enterprises. Via advanced database and communication technologies and sound coverage of diverse business functions, ERP systems achieve data centralization, integration of business software applications and business process redesign, all in the quest for process optimization, productivity enhancements and gaining of competitive advantage through innovative information technology. For the successful enterprises and organizations within the Information and Knowledge Society, ERP Systems are the backbone transactional information platforms that allow quick response to the challenges emanating from the continuously evolving business landscape

##### **Analysis and Planning of Distribution and Transportation Systems**

This course deals with the analysis and planning of transport and distribution systems. The course consists of two parts. The first part is focused on the major operational features of transport systems, the relevant institutional environment, and methods for forecasting transport demand. The second part provides operational and tactical planning problems arising in designing and managing freight transport and distribution systems. After completing the course the students will be able to:

- understand the structure, the operations and the broader Political, Economic, Ecological, Societal, and Technological environment of the transportation system,
- develop and apply transport demand forecasting models,
- understand the characteristics of major decision making problems for transportation and distribution systems,
- develop and solve mathematical models for optimizing transportation and distribution decisions,
- understand the role and capabilities of advanced technologies, and will be able to assess the impacts of advanced technologies on the management of freight transportation systems.

### **Portfolio Analysis & Management**

Students having successfully attended the course should be able to explain the concept of required rate of return and discuss the components of an investor's required rate of return; describe the steps in the portfolio management process; define investment objectives and constraints; explain why investment objectives should be expressed in terms of risk and returns; discuss the role of the investment policy statement in the portfolio management process; list the factors that may affect an investor's risk tolerance; formulate and implement the major steps in asset allocation. Students will be also able to compare and contrast strategic and tactical asset allocation; explain the advantage of dynamic over static asset allocation; define optimal portfolio and show how each investor may have a different optimal portfolio; identify the market portfolio and describe the role of the market portfolio in the formation of the capital market line (CML); list the assumptions of the capital market theory; describe the market model, the capital asset pricing model and other multifactor models; calculate, using the security market line (SML), the expected return on a security and evaluate whether the security is undervalued, overvalued, or properly valued; define an efficient capital market and describe and contrast the three forms of the efficient market hypothesis (EMH); discuss the impact that the phases of the business cycle have on short-term/long-term capital market returns; explain and justify the impact of international diversification on the efficient frontier; calculate and interpret the value of a common stock using the dividend discount model (DDM); describe and estimate the expected earnings per share (EPS) and earnings multiplier for a company and use the multiple to make an investment decision regarding the company; calculate and interpret P/E, P/BV, P/S, and P/CF; justify the need for a theory of active portfolio management; discuss the rationales for passive, active and semiactive equity investment approaches; recommend an equity investment approach when given an investor's investment policy statement; describe the fundamental principles of bond valuation; compute the duration of a bond; design a bond immunization strategy; evaluate the portfolio performance; define a hedging strategy of the systematic risk of a portfolio.

### **Advanced Topics in Strategy and Innovation**

The purpose of this course is to make students understand selected issues related to strategy and innovation. Specifically to promote understanding of critical issues in the areas of strategy implementation and strategic change, governance and corporate responsibility, as well as with the management of innovation. It aims at providing knowledge, and also at developing students' skills in the application of strategy concepts, methods and tools in dealing with the specific issues addressed as well as by focusing on practical examples and cases, and application projects.

## **Strategies for Decision Making and Problem Solving**

This course is designed to enable decision-makers, team leaders and employees at all levels of the organisation to use a systematic start-to-finish decision making framework that integrates the most successful techniques and strategies for attacking ill-defined business problems. To this end, students are educated to analyse problems, explore the constraints, and identify the target problem in ill-defined decision making environments, generate solutions and innovation ideas and choose the best of them.

## **2.8 EIGHTH SEMESTER**

### **Digital Entrepreneurship (Stream V)**

E-Business offers the opportunity for increasing the competitiveness of enterprises (with innovative business models, with personalized services, business analytics etc.) and the creation of new enterprises exploiting the potential of digital media (eg internet). Innovation is also an essential tool in the modern business environment for increased productivity, value added impact, international competitiveness and sustainable development. This course covers the above two trends (ie the connection of digital services and new entrepreneurship) through an interdisciplinary approach

- The students to acquire the specialized knowledge in technical and organizational aspects of e-business
- To be able to understand the potential of innovation and strategy for dynamic new companies (start-ups)
- To obtain the necessary knowledge to design innovative technological services / products and the development of a comprehensive business plan
- To use the above in order to create innovative business models / services / business in a real life environment with emphasis in new technologies

### **Internship project (compulsory)**

Students implement their internship project in various departments of the host organization, e.g., Marketing, Finance, HR, Logistics, IT etc. During their placement they get more familiar with the functions, practices and management systems applied within the host organization, under the close supervision of a designated manager/supervisor. This takes place in close collaboration with the academic supervisor, i.e., the designated faculty member. Alternatively, students undertake a well-defined project, assigned by the host organization and agreed with the academic supervisor regarding its actual content. Last, there is the option of the students deploying a novel entrepreneurial activity through their active participation in the corresponding team of the host organization.

### 3. BENEFITS AND OPPORTUNITIES FOR STUDENTS

#### 3.1 EDUCATIONAL INFORMATION SYSTEM - EDUPORTAL

(<http://eduportal.dmst.aueb.gr/>)

The use of new technologies in education is well established both in our country and worldwide. In this context, in recent years Academic Institutions have been constantly working to build significant technological infrastructure that is able to support and facilitate educational work. Such efforts gradually start with a pilot phase and then progress to the stage of maturity and operational exploitation of new technologies, providing high quality educational services.

The Department of Management Science and Technology is a pioneer among Greek academic institutions in the application and use of new technologies in education. Since May 2004, it has boasted an integrated student information system and electronic distribution of educational material, EDUPORTAL. EDUPORTAL is based on international standards set by the best international academic institutions (eg., open courseware MIT) and aims at better management and use of the teaching material in the Department of Management Science and Technology.

This technological infrastructure allows further expansion of the digital educational services provided by the Department in the direction of e-learning, such as personalized services to students and interactive digital learning materials, by providing relevant information for each course, while allowing teachers to construct and define the way the course material appears on the page, and the time at which it will be available to students. The system aims to manage the educational content of all the undergraduate program of the Department of Management Science and Technology, correlating the teaching material presented in class with the curriculum and integrating the presentation of the material with the rest of the information regarding the course. The use of the system has already expanded to include the graduate programs of the Department, too. The main axes of the intended use of the system are:

- The structuring of the content of each course according to the teaching program.
- The differentiation of the material presented: main educational material, auxiliary material, announcements, instructor's contact information, and course description are presented and processed in separate sections on the page of each course.
- The instructor's ability to directly update digital content.

Over the last 12 months, the system was accessed by 66,893 users averaging 5,574 per month. About 90 GB of educational material were downloaded from the system server. Throughout the year, the use of the system is high, peaking in January and June (exam periods) and decreasing only in the summer months and particularly during the period 15 July - 15 August.

The future plans of the Department of Management Science and Technology include expanding the system to allow material enhancement with metadata (difficulty level, prerequisites, etc.), facilitating the process of delivering personalized services and the use of search services, with a view to establishing EDUPORTAL as a key instrument supporting the educational process and distance education.

### **3.2. LIFELONG-LEARNING STUDENT EXCHANGE – ERASMUS**

#### **Objectives and functions of the ERASMUS program**

Erasmus is the action scheme of EU's Lifelong Learning Program concerning European cooperation in the field of higher education. Specifically, it includes

- Organized student exchanges for recognized periods of study
- The Credit Transfer System (ECTS)
- Mobility and teaching staff exchanges
- Linguistic preparation for outgoing and incoming students and staff
- Short duration Intensive teaching programs
- Developing joint activities relating to all levels of education
- Language study combined with other academic disciplines
- University cooperation programs on issues of mutual interest (Thematic Networks)
- Preparatory visits for future cooperation activities
- Application of methods of open and distance learning.

In order to contribute to mobility costs (travel expenses, linguistic preparation and difference in cost of living), the European Commission awards grants to students who have been selected to participate in the Erasmus program covering a period of recognized study abroad, lasting from 3 to 12 months.

The European Commission encourages studying abroad as a means of improving the quality of academic cooperation for the benefit of students and educational institutions. Studying abroad is an invaluable experience. Not only is it the best way for students to enrich their knowledge about other countries, ideas, languages and cultures, but it is also a very important part of the development of career and academic prospects.

Students wishing to spend a period of study abroad will seek

- curricula tailored to their own programs
- full academic recognition, guaranteeing that they will not lose time and courses while studying abroad.

#### **Further information**

Katerina Galanaki / Lifelong Learning Erasmus Program Coordinator

Department of International Relations and European Educational Programs,

Patision 76, Athens 104 34, Tel +30 210 8203250, Fax +30 210 8228419, e-mail: [galanaki@aueb.gr](mailto:galanaki@aueb.gr)

## **ERASMUS at the Department of Management Science & Technology**

During the operation of the program in our Department (2002-present) 279 students participated. These students studied abroad for a semester or a whole academic year with successful results and returned to the University with an excellent impression of their experience.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Outgoing</b>	2	10	29	18	29	22	32	29	22	31	55
<b>Incoming</b>	0	5	19	16	21	24	28	41		17	TBA

The faculty of the Department offers the following courses to incoming Erasmus students

### **Autumn Semester**

1. Management of Information Systems
2. Managerial Decision Making
3. Production and Operations Management
4. Information Resource Management
5. Modern Enterprise Information Systems
6. Algorithmic Operations Research (reading course)
7. Business Models and Business Plans (reading course)

### **Spring Semester**

1. Special Topics in Software Engineering
2. Supply Chain Innovation and Advanced Information Systems
3. Corporate Governance
4. Innovation in organizations knowledge, creativity and the processes of innovation
5. Leadership Competencies (reading course)
6. Green Supply Chain Management (reading course)
7. Social Networks Analytics (reading course)

### **Contact**

The academic coordinators for the Erasmus program in the Department are

- Dr. Nancy Pouloudi, e-mail: [pouloudi@aueb.gr](mailto:pouloudi@aueb.gr), and,
- Dr. Irini Voudouris, e-mail: [ivoudour@aueb.gr](mailto:ivoudour@aueb.gr)

The secretarial support for the Erasmus program in the Department is provided by

- Elena Kanderaki, email: [elka@aueb.gr](mailto:elka@aueb.gr), and
- Dimitra Hatzidimitriou, email: [dmc@aueb.gr](mailto:dmc@aueb.gr)